

## REMARKS

### 1. Examiner's Interview

The undersigned attorney appreciates the telephonic interview provided by Examiner Borissov on Wednesday, September 9, 2009 (12 PM EST / 11 AM CST) to discuss several issues regarding the application. To briefly outline the undersigned attorney's understanding of the relevant points of the discussion:

- The undersigned attorney noted that Applicants' invention is basically addressed to a fraud prevention method for credit cards and the like where charges coming from a location are sent for processing along with the utility meter ID of the location. This allows an added measure of security because a financial institution can see whether a credit card or the like is present at a particular confirmed location (the meter location). For example, if a charge coming from an online store contains verification that a credit card is present at a "trusted" location (i.e., that the charge was entered at the address of the named online consumer, as confirmed by the consumer's meter ID), the charge is less likely to be fraudulent. In contrast, prior systems do not couple charge requests with meter ID's, and provide no way of identifying the online consumer's location, or verifying the presence of a genuine (nonfraudulent) credit card at that location. As a result, prior systems are more susceptible to fraud, e.g., identity theft / card data theft. (The undersigned attorney also referred to page 16 of Applicants' May 4, 2009 Response for a more detailed discussion.)
- The undersigned attorney noted that the July 8, 2009 Office Action posed new claim rejections which are largely based on US 5,959,549 to *Synesiou et al.* (which was previously cited), with new reference US 5,146,067 to *Sloan* being cited as a secondary reference for obviousness purposes. The undersigned attorney asserted that the claim rejections were nonetheless very similar to those made in the prior November 4, 2008 Office Action, and which were overcome by Applicants' subsequent May 4, 2009 Response; that the arguments of Applicants' May 4, 2009 Response could therefore be directly applied to the new *Synesiou et al.* / *Sloan* rejections; and the new *Synesiou et al.*

*/ Sloan* rejections should therefore be overcome for the same reasons as the prior *Synesiou*-based rejections. As noted in the arguments of Applicants' May 4, 2009 Response, *Synesiou* does not include all of the features asserted in the rejections (in particular, transmission of the charge request based in part on the meter location ID). As for the newly-cited *Sloan* reference, this merely related to another prepaid card utility payment scheme (as seen, e.g., in *Sloan*'s Abstract and at column 3 line 51-column 4 line 25), and thus the arguments of Applicants' May 4, 2009 Response seemed applicable despite the addition of *Sloan*.

- The undersigned attorney noted that if the obviousness analysis of **MPEP 2142** is followed, with one placing the claimed invention out of mind and objectively considering the art of record from the standpoint of an ordinary artisan, one simply wouldn't contemplate or conceive the claimed invention: it's not known, nor would it be foreseeable, to couple charges with meter IDs to obtain some degree of assurance that the charge is made from a trusted location. Credit cards and "card-present" verification systems are certainly known, and there are certainly many prior utility payment schemes which allow for prepaid power dispensation (e.g., by essentially turning meters into "energy vending machines," as in *Synesiou* and *Sloan*), but these are not what is claimed, nor are these the core focus of the invention.
- The Examiner asserted that the rejections were nonetheless proper, at least insofar as they related to the routing of charge requests, coupled with meter IDs, through a meter to a financial institution, *for purposes of making utility payments*. The Examiner asserted that when utility payments are made via meters (as in *Synesiou*), the charge requests are coupled with PINs, account numbers, or other such info which essentially serves as a meter ID (as at column 5 line 52 onward of *Synesiou*). The Examiner asserted that while such information is fundamentally intended to identify a consumer, it also indirectly identifies the consumer's meter, and thus serves as a meter ID.
- The Examiner indicated that the claims might attain allowance if clearly restricted to *non-utility* payments, since it seems unobvious in view of the art of record to devise a

system as claimed wherein *other* goods/services are sold (i.e., where a user is paying for matter other than utility usage). However, no assurances of allowability could be provided until supplemental searching was performed. Further, while the closing clause of claim 1 contained limitations addressed to non-utility payments, these limitations would be given no weight because the “financial institution” was not a positively-recited element of claim 1. The limitations in other claims relating to non-utility payments would require further scrutiny for similar issues.

If the undersigned attorney’s understanding of the content of the interview is incorrect, do not hesitate to contact the undersigned attorney to provide clarification.

## **2. The Amendments and the Support Therefor**

Four claims have been canceled (35, 36, 40, and 44, of which 35 and 44 are independent claims), three new claims have been added (46-48, of which 36 and 48 are independent claims), and claims 1-21, 23-26, 28, 37, 38, 41, 42, 43, and 45 have been amended to leave claims 1-21, 23-26, 28, 37-39, 41-43, and 45-48 in the application. Payment for any newly-submitted claims in excess of the amount previously paid for should accompany this Response, as per 37 CFR §1.16(b)-(d), with the fee due being calculated as follows:

**FEES CALCULATION**

For	Already Paid	No Extra	Rate (\$/SMALL ENTITY)	Fee (\$/SMALL ENTITY)
Total Claims	\$36 - \$37 =	\$0	\$126 =	\$0
Independent Claims	\$8 - \$8 =	\$0	\$140 =	\$0
			Total:	\$0

No new matter has been added by the amendments or new claims, wherein:

- Numerous claims are made to “Americanize” the spelling of “authorisation”;
- *Independent claims 1, 37, and 42* are also amended to positively recite the “financial institution,” as discussed above;
- *Independent claims 43 and 45* are also amended to restrict the transactions involved to non-utility transactions, as discussed above;

- *New independent claim 46* finds support in (for example) claims 1, 18, 37, 42-45; page 8 line 22-page 9 line 11; page 10 lines 22-24;
- *New independent claim 47* finds support in (for example) page 8 line 22-page 9 line 11; page 10 lines 22-24; claims 38-41;
- *New claim 48* finds support in (for example) page 8 line 22-page 9 line 11.

**3. Rejection of Claims 1-12, 14-21, 23, 28 and 35-41 under 35 USC §103(a) in view of U.S. Patent 5,959,549 to Synesiou et al., U.S. Patent 5,146,067 to Sloan et al., and Official Notice**

U.S. Patent 5,959,549 to *Synesiou et al.* is directed to an improved Electricity Dispensing Unit (EDU) system, wherein an EDU allows a consumer to prepay for power at a site, and then cuts power to the site when the paid amount is consumed (column 1 lines 6-25). Referring to FIG. 1, a power provider – whose payment processing facilities (“Vending Depot,” “Treasury Dept.,” “Master Control”) are illustrated at the top of the Figure – communicates via radio with “concentrators” 32 receiving power from mains cable 36 (column 3 lines 41-55). Communal metering controllers (“CMCs”) 34 – which are effectively electricity substations which subdistribute electricity from the mains cable 36 – communicate with the concentrator 32 over the mains cable 36, thereby in turn allowing the substations / CMCs 34 to communicate with the power provider via the radio link of the concentrator 32 (column 3 lines 41-50).

Each substation / CMC 34, shown in greater detail in FIG. 2, contains several remote measurement modules (meters) 38, shown in greater detail in FIG. 3 (column 3 lines 57-63). Each meter / remote measurement module 38 controls power supply to a particular site to which it is assigned (column 3 lines 57-63). Looking to FIG. 3, in each meter / remote measurement module 38, a transformer 58 measures the amount of power consumed at the meter / module 38's site. The power consumption data is passed to the substation / CMC 34 of FIG. 2 via the meter / module 38's interface 70 (column 4 lines 4-24). Referring to column 4 lines 33-49, the meter / remote measurement module 38 also includes a controller 68 (FIG. 3) storing a variety of data (column 4 lines 33-53), including “a unique identification number and a module address code,

allowing the consumption data derived from a particular consumer site to be related to that site and to the credit data corresponding thereto" (column 4 lines 49-53). The controller 40 (FIG. 2) of the substation / CMC 34 then receives the consumption data and meter ID for each of its meters / modules 38 versus each meter / module 38's credit, and when the credit stored by the substation / CMC 34 is exhausted, the substation / CMC 34 signals the controller 68 (FIG. 3) of the meter / module 38 to have its contactor 60 cut power (column 4 line 54 onward).

A display unit 73 (FIG. 4) is also provided at each consumer site, and it allows consumers to communicate with the power provider, e.g., to send in credit card data and purchase power (column 5 lines 15-65). However, the display unit 73 is not part of the site's meter / remote measurement module 38, nor does it directly communicate with the meter / remote measurement module 38. Rather, the display unit 73 has "a microprocessor controller 74 connected to a mains modem 76 which is arranged to be plugged into the mains electrical supply at the consumer site and which allows communication between the remote display unit and the communal metering controller 34 which controls the supply of electricity to that consumer site, via the mains modem 42" (column 5 lines 18-24). Or, as stated at column 6 lines 40-43, "[t]he remote display unit can be installed anywhere at the consumer site, since it has no direct physical link to the communal metering controller 34, but communicates instead via the mains supply into which it is plugged."

U.S. Patent 5,146,067 to *Sloan et al.* concerns a prepayment utility metering system in which cards are loaded with pre-payment credits at a location remote from the utility meter (column 3 lines 51-60), and the cards can then be read at the meter to provide utility credits (i.e., to prepay for utility usage). When the credits are exhausted, a new card with additional credits must be purchased to ensure continued utility supply (column 17 lines 35 to 39). The cards are not credit or debit cards, nor could they be used as such. The data on the cards, which is borne on a magnetic strip, is encrypted for security so that only the issuing system and the customer's premises can read the data (column 3 lines 60-65). The utility meter does not communicate with the utility supplier concerning a financial transaction (the utility usage purchase); as with utility prepayment systems discussed in prior Office Actions and Responses, it has no need to do so,

since the utility meter simply stops supplying the utility once the pre-paid credits are exhausted. The cards are only sold to consumers at certain facilities (column 8 lines 32-35), and the underlying financial transaction will take place at these facilities when purchasing the prepayment credits. The transaction type will depend on whether the transaction meets the credit/debit card present criteria and has nothing to do with the use of the card (this is what is being bought).

All the utility meter needs to do in *Sloan* is read the data on the card. The utility meter and/or its user interface does not communicate any data away from the meter (to a financial institution or otherwise); it simply turns the meter on and off in relation to the credit detected on the card.

Turning then to the Office Action's legal conclusion of obviousness, the Office Action states (at page 3):

Official notice is taken that it is old and well known to use credit cards for paying for various goods or services instead of using checks or money orders.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify *Synesiou et al.* to include that the financial institution processes the card charge request from the utility meter regardless of whether the card charge request relates to any utility usage measurements made by the utility meter for the benefit of convenience.

As discussed in the interview (and reviewed in the foregoing interview summary), this is simply not so. The matter that is the subject of Official Notice is undisputed – it is indeed true that credit cards are used to pay for a wide variety of goods and services. However, it cannot fairly be said that one of ordinary skill, who had no knowledge of the claimed invention, would ever contemplate using *Synesiou et al.*, *Sloan et al.*, or any of the other references of record for paying for anything apart from utility usage: it is simply not known to make any payments which make use of a meter ID except for possibly utility payments, and an ordinary artisan would not foresee using a meter ID in a payment scheme unless utility payments were involved. The Office Action states that one of ordinary skill would extend the use of a meter ID to non-utility payments “for the benefit of convenience,” but consider: if the references are objectively considered for all that they teach, with the claimed invention being placed out of mind (so that hindsight is avoided), *what would one be paying for except for utility service?* Also, how would

use of the noted arrangement truly be convenient? Typical credit card payments are transmitted via telephone (modem) or other telecom lines. Here, if one was to pay for matter other than utility service, how is it really convenient to transmit a charge authorization via transmission over a power line (as in *Synesiou*), to a utility provider (who would then need to serve as a “middleman” handling financial arrangements for the provider of the non-utility matter)? Put differently, if you were a merchant, would you regard this as convenient, or even feasible (as compared with conventional telecom transmission of charge authorizations)? With all respect, when the rationale for the rejection is objectively considered, it is simply unconvincing: it’s far easier to simply pay by phone or internet, as is traditional.

To review, it is important to note that the focus of the claimed invention is not payment for utility services – rather, it is on screening for card transactions that are more likely to be fraudulent, regardless of whatever goods and services are being purchased. As discussed in the interview, there are two primary types of credit / debit card transactions:

- (1) Card-present transactions, wherein the physical credit card is presented to a vendor at a point of sale to pay for goods. In this case, the vendor sees the card, and can visually inspect it (and perform actions such as matching the signature on the card to the signature provided by the purchaser) to obtain a reasonable assurance that the card is genuine. While fraud is still possible, card-present transactions present relatively low fraud risk.
- (1) Card-not-present transactions, wherein the purchaser is not at the physical point of sale, e.g., where the sale is made over the phone, or via an internet transaction. In this case, the card cannot be inspected by the vendor: the card number is read over the phone or entered into a web page, and this is passed to a financial institution to obtain payment for the transaction. These transactions are more susceptible to fraud, e.g., by employees of merchants copying card data when cards are out of sight, or by someone acquiring credit card number from discarded mailings or receipts. Even where thieves are only able to acquire partial card data, they can commit fraud by “guessing” missing card data via random number generation or similar techniques.

From the perspective of the financial institution, the prospect of fraud is considerably higher for card-not-present transactions than for card-present transactions. This risk is reflected by the rates charged by financial institutions to merchants when accepting card-not-present transactions, by the time and level of scrutiny applied to card-not-present transactions, and by other hurdles faced by merchants accepting card-not-present transactions.

The claimed invention alleviates this risk, at least in part, because tying the card number (and card presence data, e.g., a physical card swipe and/or entry of the 3-digit code on the card signature strip<sup>1</sup>) to the identification (and thus the location) of a utility meter helps to give a guarantee of the charger's location (and the card's location). It can therefore be seen whether a charge originates from a "safe" location – e.g., the authorized user's home, or some distance therefrom – rather than an unsafe one, e.g., a far-off location at which the authorized user is unlikely to be.

*Synesiou* does not contemplate such an arrangement – the power provider has no idea where a charge request originates – and it cannot fairly be said that an ordinary artisan who has no knowledge of the invention would contemplate the claimed arrangement, which (as presently claimed) relates to non-utility purchases (e.g., online or telephonic purchases of electronics, clothing, media such as books or DVDs, or other goods). An ordinary artisan reviewing the art of record simply would not contemplate tying a meter identifier to the purchase of such goods. The unobviousness of the invention can also be illustrated by placing out of mind the foregoing discussion of the reasons for the invention, and advantages of the invention, and considering what you would think if someone proposed to you a payment processing system for non-utility payments, wherein the transaction authorizations include utility meter identifier data: would you not then ask why one would bother with use of the utility meter identifier? Without knowing the purposes and advantages of the invention, what use would you think the utility meter identifier serves? Kindly withdraw the rejections.

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<sup>1</sup> This code is variously referred to in the industry as the Card Security Code (CSC), Card Verification Value (CVV), Card Verification Code (CVC), Card Code Verification (CCV), Verification Code (V-Code), and similar names. It is noted that the USPTO's own EFS-Web online filing system requests such codes if charge cards are used to pay USPTO fees online.

**4. Rejection of Claims 13 and 24-26 under 35 USC §103(a) in view of U.S. Patent 5,959,549 to Synesiou et al., U.S. Patent 5,146,067 to Sloan et al., Official Notice, and WO 00/58922 to Bos**

*Bos* is yet another system for purchasing utility usage by a prepayment system, but here the prepayment credit or “token” is purchased wirelessly (via a cellular / GSM handset), thereby avoiding the need for a rural customer to go to a location which sells prepayment cards (as in *Sloan et al.*). The utility meter does not take any part in the actual purchase of the prepayment token; this is purely between the customer’s cellular / GSM handset and the token vending site. As such, it is not clear *Bos* even uses credit / charge card transactions, and in any event it certainly would not be the case that the utility meter could be used to vouch for the location of the transaction (given that it could happen anywhere from which one is capable of making a GSM call).

The reasoning discussed above applies here as well: an ordinary artisan who had no knowledge of the claimed invention, and who considered the cited references in view of the state of the art, would simply never contemplate or conceive the claimed invention. It is simply unknown to make non-utility purchases wherein the transaction data is linked to a meter location identifier, and there is no apparent reason why this concept would be considered by an ordinary artisan.

**5. Rejection of Claims 43-45 under 35 USC §103(a) in view of U.S. Patent 5,959,549 to Synesiou et al. and U.S. Patent 5,146,067 to Sloan et al.**

The reasoning discussed above applies here as well. When the obviousness analysis mandated by MPEP 2142 is followed, it simply cannot fairly be said that an ordinary artisan who had no knowledge of the claimed invention would contemplate the invention:

To reach a proper determination under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical “person of ordinary skill in the art” when the invention was unknown and just before it was made. In view of all factual information, the examiner must then make a determination whether the claimed invention “as a whole” would have been obvious at that time to that person. Knowledge of applicant’s disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the “differences,” conduct the search and evaluate the “subject

matter as a whole" of the invention. The tendency to resort to "hindsight" based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

The Office Action states that:

In this case, each of the elements of the cited references combined by the Examiner performs the same function when combined as it does in the prior art. Thus, such a combination would have yielded predictable results. *See Sakraida*, 425 U.S. at 282, 189 USPQ at 453. Therefore, Supreme Court Decision in *KSR International Co. v. Teleflex Inc.* (*KSR*, 82 USPQ2d at 1396) forecloses the argument that specific teaching, suggestion, or motivation is required to support a finding of obviousness. See the recent Board decision *Ex Parte Smith*, --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007).

However, this rationale is flawed because the combination of claimed elements *doesn't* function as in the references of record: none of these show or in any way suggest a system for payment transactions which use a meter location identifier *where the payments in question do not relate to utilities*. Further, the stated rationale for the rejections does not explain why one of ordinary skill truly would have conceived the claimed invention after review of the references of record. As noted in MPEP 2142:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_, \_\_, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

Or, as stated in *KSR* (82 USPQ2d at 1396) and noted in MPEP 2143, "it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." Kindly withdraw these rejections as well.

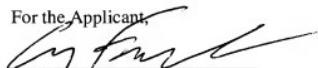
**6.      New Claims 46-48**

New claims 46-48 are submitted to be allowable for at least the reasons noted above: the known prior art simply does not show or suggest the use of a utility meter identifier in a credit/charge card funds authorization for a non-utility-related transaction to verify the location of the funds authorization, and/or that the card is present at that location.

**7.      In Closing**

If any questions regarding the application arise, please contact the undersigned attorney. Telephone calls related to this application are welcomed and encouraged. The Commissioner is authorized to charge any fees or credit any overpayments relating to this application to deposit account number 18-2055.

For the Applicant,



Craig A. Fieschko, Reg. No. 39,668  
CUSTOMER NO. 25005  
DEWITT ROSS & STEVENS S.C.  
2 E. Mifflin St., Suite 600  
Madison, WI 53703-2865  
Telephone: (608) 395-6722  
Facsimile: (608) 252-9243  
cf@dewittross.com